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WORLD TRADE NEWS

Silicon Valley has some cause for optimism. Louise Kehoe in San Francisco explains

U.S. narrows quality gap with Japan

THE ELECTRONICS industry in the U.S. appears to be regaining some semblance of its old self-confidence after years of uncertainty in the face of intense Japanese competition. Two developments within the industry in the past month serve to illustrate the point. First, Motorola, the U.S. chip maker, received an "outstanding quality" award from Hewlett-Packard, the electronic equipment manufacturer.

The matter was not simply a case of the industry congratulating itself, for Hewlett-Packard has been one of America's most outspoken critics of U.S. chipmakers. "Motorola's accomplishment is indicative of a trend throughout the U.S. semiconductor industry towards significantly higher parts quality—a trend that is closing the quality gap between U.S. and Japanese semiconductor companies," a Hewlett-Packard spokesman said recently.

Just two years ago, the company dropped a bombshell on the domestic semiconductor industry by reporting that Japanese-made memory chips had much lower failure rates

than U.S.-made parts. The award comes at a time when U.S. computer companies are recognising the threat of Japanese competition in their own markets. To nurture and protect their own suppliers, U.S. computer makers are building up closer working relationships with their component suppliers—sharing quality improvement projects and, in some cases, sharing research and development.

IBM has gone even further by buying 12 per cent in Intel, one of its major semiconductor suppliers.

On a larger scale, several of the largest U.S. chip and computer makers have joined forces in two co-operative research and development organisations that will undertake basic research on behalf of all members.

U.S. companies see this as a defence against major co-operative development projects in Japan and Europe. The degree to which the industry can operate is limited by U.S. anti-trust laws, which the Electronic Industries Association is pushing to change. Few in the

industry doubt that this will be a long, uphill battle. It is recognition by the Reagan Administration of the Japanese competitive threat that has given the industry its second recent boost. A key element is the recent Japan-U.S. trade restraint agreement, which focussed on Japanese car shipments to the U.S. But it also embodied a "work programme" designed to eliminate trade and investment barriers in high technology industries.

This aspect of the accord also seeks "to minimise problems caused by Japanese companies," the agreement says. While the work programme is not binding on bilateral trade, the U.S. Government is encouraging that the Japanese have grasped America's concern over the effects of Japanese competition on its industry. The agreement is also seen as a quick response to a U.S. Semiconductor Industry Association (SIA) report on the effects of the recent Japanese onslaught on the U.S. semiconductor market. The SIA report was published on February 3.

The SIA report argued that Japanese industrial policies are substantially weakening the U.S. semiconductor industry and threatening its future. The industry points out that the U.S.-Japan semiconductor battle has been centred on the vital market for 64-K Ram (64 kilobit random access memory)—devices used in computers. The report notes that the Japanese strategy in 64-K Rams could be compared with its approach to the ball bearing industry in the 1950s when Japanese producers drove many foreign competitors out of the market. In effect, the Japanese see the 64-K Ram as the thin end of the wedge which could lead to overall domination of the U.S. semiconductor market.

According to the SIA report, U.S. 64-K Ram producers made huge pre-tax losses on Ram sales from 1981 and 1982. Collective losses by U.S. producers in the third quarter of last year totalled \$12m on revenues of \$26.4m. The U.S. concerns attribute their losses to Japanese-led price cutting. As a result of the Japanese

offensive, U.S. companies have cut back their Ram activity, the report says. Whereas 12 to 15 U.S. companies participated in the market for the previous generation of 16-K Rams—only five currently make 64-K Rams. The impact of Japanese competition goes beyond losses incurred by these companies, however, because memory chips are the "bell-weather" of the industry—in effect, the skill gained in memory chip development is of such a high order that corporations developing them are at a competitive advantage in other sectors of the industry.

While the achievements of the U.S. negotiating team in Japan are of importance, a further gain is President Ronald Reagan's own public support for the industry. "Since the State of the Union address (in which Mr Reagan referred to the pioneer spirit of the high technology frontier) it has become clear that the Administration is committed to supporting the electronics industry," an SIA official commented.

Ottawa, Washington resolve air row

By Our Foreign Staff

CANADIAN and U.S. trade negotiators have resolved a bilateral fares dispute which had disrupted the travel plans of thousands of discount ticket holders and aggravated already tense trade relations between the two countries.

The agreement permits Air Canada to continue charging its "seat sale" weekend discount fare. The U.S. Civil Aeronautics Board, backed by President Reagan, last week banned the sale of the tickets, the use of which went into effect a week ago, although the ban was suspended while negotiations were continuing and because many of the 50,000 ticket holders were in the midst of their travel.

Under the agreement with the U.S., the Canadian Government will permit Continental Air Lines of the U.S. to offer a fare between Vancouver and the South Pacific through Los Angeles that will match a fare charged by CP Air, a Canadian Pacific unit, on its Vancouver-Honolulu-South Pacific flights. CP Air fare competes with Qantas of Australia over this sector and had been reluctant to allow U.S. competition on the route.

Canada had refused to permit Continental to offer that matching fare and the CAB retaliated by suspending the Air Canada fare proposal. Air Canada dominates Canadian air services to the U.S. Continental will be allowed to sell 8,000 seats over the next year and a maximum of 120 flights a week between Vancouver and the South Pacific.

Malaysian pipeline deal for Canadians

CALGARY — Novacorp Engineering Services of Canada said its joint venture with two Japanese companies has been awarded a contract for the design and construction of a pipeline project in Malaysia. Value of the contract was not disclosed.

Novacorp along with Mitsui Engineering and Shipbuilding and Nichimen Corporation has signed an agreement concerning the Peninsular gas utilisation project with Petronas, Malaysia's state petroleum group.

Novacorp will be responsible for engineering, design, construction inspection and commissioning of the system. The project is the first on-shore gas pipeline ever constructed in Malaysia and consists of several types of pipeline facilities totalling some 85 km along the east coast of the country. AP-DJ

Mitsubishi cars en route

By Colin Chapman in Sydney

THE FIRST major shipment of Australian-made cars has left for Britain, enabling a Japanese company to increase import penetration in the UK without breaking the men's agreement limiting market share.

The cars have been manufactured at the Tonsley Park, Adelaide plant which Mitsubishi Motors of Japan bought from Chrysler two years ago. The shipment was of 250 Sigma saloons and estate cars which will be marketed in Britain under the Lonsdale marque as a result of an agreement between Mitsubishi and the Lonsdale Car Company of the UK.

A total of 3,700 will be ordered from Australia to Britain this year.

Swedes win schools order

STOCKHOLM — Skanska Cementgjuteriet, the Swedish construction group, has obtained a turnkey order valued at SKr 830m (£73m) for 12 pre-fabricated boarding schools in Algeria.

The pre-fabricated schools, which will consist of a complex of about 25 buildings each, will be 80 per cent manufactured in Sweden by Cementgjuteriet or its subcontractors. The order will be delivered and completed by the end of 1994 or early 1995. Financing will be with the support of Sweden's export credit programme. AP-DJ

Ethiopian Airlines to buy 767s

Ethiopian Airlines has ordered two Boeing 767s to be delivered in May and June next year. Reuter reports from Addis Ababa. General Manager Mohammed Hamed said the airline had made financial arrangements with Citibank and final agreement on funding is being negotiated. The 210-seat aircraft, which cost \$55m each, will be used for a new Ethiopian airline service to Japan.

Czechs seek UK interest in third market ventures

BY DAVID SUCHAN, EAST EUROPE CORRESPONDENT

BRITISH-CZECH industrial co-operation on projects for third markets is the most effective way of boosting the currently low level of trade between the two countries.

This was the message from a major Czechoslovak trade delegation which last week visited Manchester and London and held talks with Mr Peter Rees, the UK Minister of Trade. At a London Chamber of Commerce seminar, Mr Josef Dolezal, commercial director for Skoda, underlined this when he noted that his engineering company now imported 50 per cent of components for the capital goods which it is selling to the Third World in increasing numbers.

Signa, the Czechoslovak pump-making enterprise, is interested in getting British co-operation in the sale of pumping stations, sewage and clear water treatment plants. Third World markets, its technical director, Mr Zdenek Zapletal, said. It already has licences from Crane Packing and the Weir Group.

Executives from the Czechoslovak steel and electronics industries said they were interested in buying from the UK in processing and steel tube technology, and control and automation equipment for energy conservation.

Last year Britain exported £70m worth of goods to Czechoslovakia and imported £22.5m from that country, putting Czechoslovakia in only fifth place in importance as a market for UK goods among East European countries. The general UK view is that while third market co-operation would be welcome, steps should first be taken to improve strictly bilateral trade.

Such an improvement will not be easy without an upturn in the UK market and a change of policy in Czechoslovakia, which cut hard currency imports by 15 per cent in the first nine months of last year.

At an estimated 800m convertible currency trade surplus last year, there is the possibility of expanded UK exports. But that depends on Prague relaxing its cautious trade and fiscal policies.

SHIPPING REPORT

Some gain for shippers seen if oil prices fall

BY ANDREW FISHER

WITH ALL eyes on the price deliberations of the oil producers, the tanker market last week remained stable. Lower prices, once a stable level has been agreed, should stimulate charter rates, though not all operators are convinced that the benefits will be large.

E. A. Gibson Shipbrokers said there was some anxiety that a cut in prices would still not be enough to boost demand, in view of the heavy oil surplus.

As the market waited for prices to settle, activity in the Gulf was minimal. Galbaird Wrightson noted there were about 50 big tankers which could be available there in the next 30 days.

"Whatever happens price-wise with crude oil, it is impossible to visualise that this mass of tonnage can even begin to be absorbed during March," it said. Much attention has focussed on West Africa, where owners hope cheaper prices will boost business rates.

In the dry cargo markets, trading was moderate. Matheson (Chartering) said the seasonal grain movement and large-scale short-stay charters had improved the short-term market.

Owners who optimistically ordered gas carriers a few years ago hoping for lucrative contracts have largely been disappointed by the market's poor performance.

Over-capacity is high and the situation will be briefly reviewed in this report, which has recently been looking at prospects for major vessel types.

John L. Jacobs, the London shipbroker, said that 21 ships of 2m cubic metres capacity—about a third of the fleet—were laid up in the liquefied natural gas (LNG) sector. The outlook for many of these, it said, "have never looked so bleak as at present."

Many LNG projects, said Jacobs, were still in limbo. With fragile oil prices contributing to delays, some have wholly collapsed, as in Algeria.

Italian steel know-how for N. America

BY JOHN PHILLIPS IN ROME

ITALIMPANTI, ONE of Italy's largest plant processing groups and a subsidiary of the IRI-Finsider state-owned steel group, has signed a licensing agreement with Ferguson to supply the U.S. engineering company with technology.

The deal means that Ferguson can avail itself of the competitive Italian know-how during the construction of blast furnaces in the U.S. and Canada. Ferguson has contracts to restructure several North American steel plants.

ITALIMPANTI has already carried off important deals in Europe, Latin America, Australia and Asia, and the new agreement with Ferguson is another example of Italian companies' increasing ability to supply technology to the U.S. rather than the more usual flow of know-how in the opposite direction.

The Genoa-based company has already established a foothold in the U.S. market through its Pittsburgh-based subsidiary Italimpianti American Gas, which is in a related development. Italimpianti reported it has finished the first stage of an important project at the Portuguese state-owned steel centre based at Seixal near Lisbon.

● The Co-operative Muratori e Cementisti di Ravenna has signed a contract for the construction of a sewer trunk line in Algeria for \$90m. The contract had been awarded in 1981, but it remained suspended due to prolonged negotiations between the two Government concerning Algerian gas, which were concluded last week.

World Economic Indicators

	RETAIL PRICES (1975=100)				% change over previous year
	Jan. '93	Dec. '92	Nov. '92	Jan. '92	
UK	241.8	241.5	241.9	230.4	4.9
U.S.	161.9	161.4	162.1	175.2	3.8
W. Germany	138.6	138.3	138.0	133.4	3.9
Italy	322.4	317.9	315.4	277.4	16.2
France	216.0	216.0	214.2	198.9	9.6
Belgium	164.3	164.4	164.5	153.5	8.3
Netherlands	154.7	154.7	155.0	149.0	3.8
Japan	148.7	149.0	150.7	144.1	1.8

Source: Eurostat and others.

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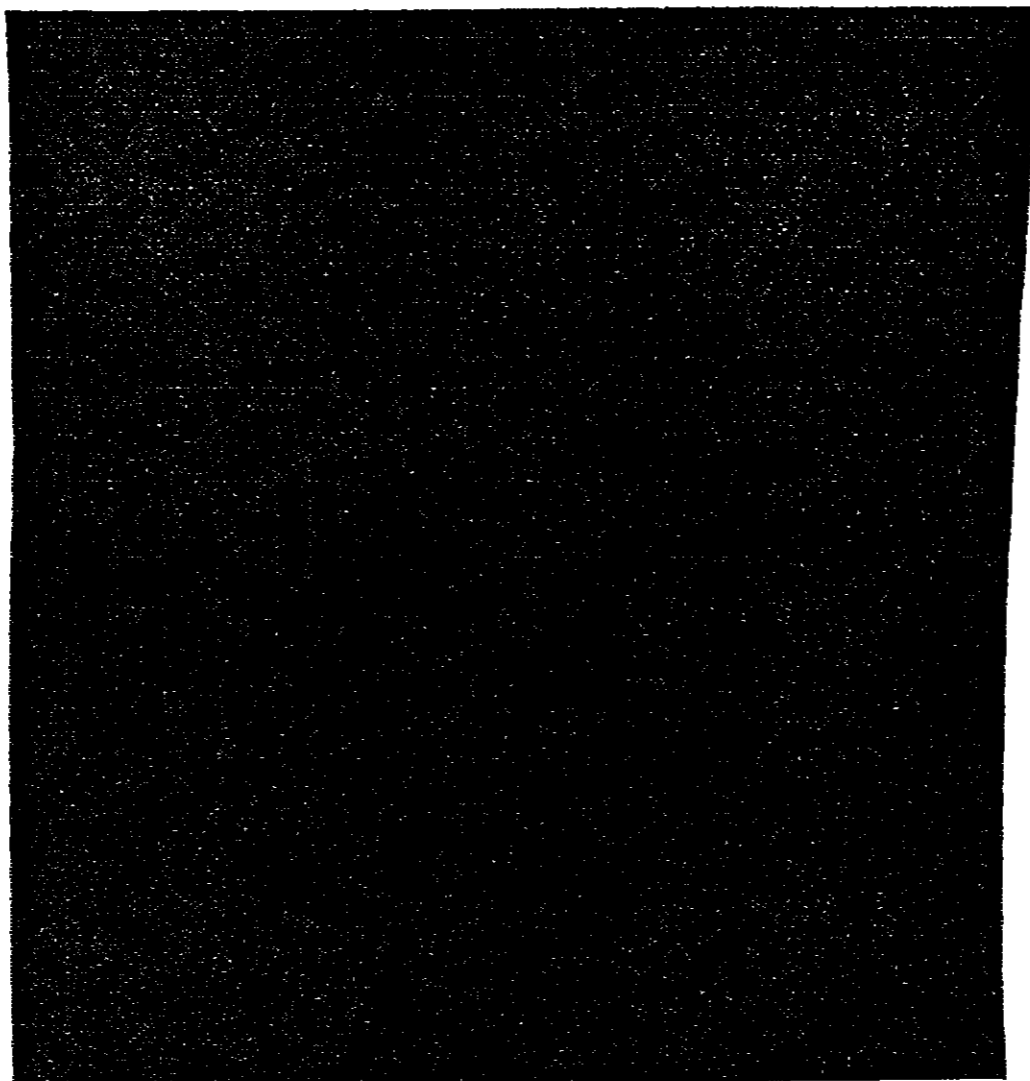
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UK NEWS

Tax load on poor 'becoming heavier'

By Robin Pauley

THE POOR are taxed more heavily in Britain than in any other European country and the situation is getting worse, with twice as many families caught in the poverty trap now than in 1979, says a report published today.

The report by the Low Pay Unit, criticises the Government for promising before the last election to reduce taxation and increasing the burden instead.

Today, Britain's starting rate on the low paid is higher than in any other EEC country. Only Italy and Greece impose tax on a lower income level than Britain, and their starting rates are 10p and 7.6p in the pound respectively, against Britain's 30p.

The report shows that:

- Taxation takes around 40 per cent of the national income, against 34 per cent in 1978-79;
- Income tax revenue has increased by two thirds since 1978-79 and VAT raises three times as much;
- The highest rate payable has been reduced from 65 per cent in 1978-79 to 60 per cent. Cuts in capital transfer and capital gains taxes mean they now provide only 3.3 per cent of total taxation revenue, against 3.8 per cent in 1979 and 5.3 per cent in 1973;
- More of the low paid are paying tax than in 1979. Although unemployment has reduced the working population by 1.7m since 1979 the number of taxpayers is virtually unchanged.

The report says tax is now payable on an income for a two-child family £25 a week lower than the official poverty line.

It urges the Chancellor of the Exchequer to raise the tax threshold by at least £220 for married couples and £145 for single people, and to increase child benefits by at least 55p a week. It says the tax rate for the low paid should be cut at least to 25p.



MacGregor not an issue in vote, says coal chief

By JOHN LLOYD, LABOUR EDITOR

MR NORMAN SIDDALL, chairman of the National Coal Board, yesterday tried to separate the appointment of Mr Ian MacGregor, chairman of the British Steel Corporation, as his successor from the issue of a strike over pit closures on which the mineworkers will vote tomorrow.

Interviewed on BBC Radio, Mr Siddall said it would be "extreme nonsense" for the mineworkers to vote on the assumption that Mr MacGregor would be chairman. "It has not happened, it may not happen, and whoever takes charge of this industry has got to carry on with the restructuring already taking place. How this is done is a matter for consultation in any case."

Mr Siddall spoke as pressure in the Conservative Party against the appointment continues to mount. Tory backbenchers are likely to raise the matter this week at the meeting of the 1922 Committee and the back bench Energy Committee. Mr Patrick McNair Wilson, a former Conservative energy spokesman, said yesterday he would seek a meeting with Mr Nigel Lawson, the Energy Secretary, to voice his colleagues' worries and that he would write to Mrs Margaret

Thatcher, the Prime Minister, about it.

Some ministers are also unhappy about the way in which the row has escalated. One said: "A period of silence by all of my colleagues would be welcome."

The Government continued, however, to support the appointment of Mr MacGregor, and wishes to appoint him if the terms are right. Mrs Thatcher, who is particularly keen on the appointment, is anxious not to be seen to bow under pressure from the miners, the Labour Party, the Coal Board and her own party. It was stressed yesterday that if Mr MacGregor does not take the job it will not be for lack of will on the Government's side.

It is understood that neither Mr MacGregor nor Sir Alastair Frame, chief executive of Rio Tinto Zinc, who has been pressed by the Prime Minister to take the BSC job, is now disposed to accept, and are likely to decline in the course of this week.

Mr Siddall, will argue in a speech to the Coal Industry Society today against "butchery" of the industry - of which miners' leaders have accused Mr MacGregor in advance and of which Mr Siddall has himself been accused - in favour of a

"compassionate" approach. He will also, however, repeat his persistent call for the unprofitable "tail" of un-economic pits, costing the board about £250m a year, to close.

Mr Arthur Scargill, the mineworkers' president, said at the weekend that the board intended to close at least 70 pits in the near future. This was denied by Mr Siddall, who said that it was impossible to close 70 pits immediately.

Mr Siddall also appeared to hint that he may stay on beyond the summer, correcting his interviewer who said he would leave then by pointing out that his contract ended then. However, it is not known if the hint was meant seriously, or was a playful remark meant to keep his colleagues and the press guessing.

Miners' branches met up and down the country over the weekend to hear local leaders put the case for a strike in support of the South Wales miners, now entering the second week of an area strike against the closure of the Tynmawr-Lewis Merthyr pit. The campaign has been conducted in a much lower key than last year's.

Supermen not enough, Page 14

Search for new chief of state shipyards

By Andrew Fisher

A SEARCH has begun for a successor to Sir Robert Atkinson as chairman of British Shipbuilders (BS), the state-owned group which is on the Government's list for privatisation despite its continuing losses.

Sir Robert, who is in his late 60s, has not indicated to his colleagues in BS whether or not he would like to stay on after his 3½ year contract ends in December.

He has put BS on a firmer organisational footing but with world merchant shipbuilding in a slump, losses have remained. The Government is considering a separate sale of the group's profitable warship activities, but Sir Robert's colleagues are against any splitting up of the corporation.

One name mentioned as a possible successor is that of Mr Graham Day, a Canadian who was once chief executive of the corporation before nationalisation in 1977.

He left because of delays over nationalisation and now works in Canada for Dome Petroleum, running its shipbuilding activities. The Department of Industry, which declined to say if Mr Day was in the running, said: "We are looking at all options."

Collapse in oil prices 'could cause crisis on scale of 1970s'

By CARLA RAPOPORT

A SWIFT collapse in oil prices will result in an energy crisis similar to those experienced in the 1970s, according to a Cambridge Econometrics report.

The report states that the underlying supply and demand conditions for oil have not changed in the last few years. On the supply side, weak prices have already caused the abandonment of many alternative energy projects. A further fall in oil prices, it says, will make more marginal oil less attractive to develop.

On the demand side, the report says that a collapse in oil prices will merely encourage consumers to switch back to oil as the incentives

to conserve energy will diminish. Cambridge Econometrics is the commercial section of the Cambridge Growth Project, a 20-year research project at Cambridge University's Department of Applied Economics.

The group's report on energy, released today, maintains that the large fall in industrial energy demand over the past decade has been offset by rising demand in the non-industrial sectors, such as households, services and transport.

In addition, it forecasts that decline in UK industrial output will be reversed this year, and with it the

decline in industrial energy demand. Although the more energy intensive sectors of industry - iron, steel and heavy engineering - will continue to perform relatively poorly, by 1990 growth overall will be enough to raise industrial energy demand in total by 4 per cent over its 1981 level.

For the economy as a whole, energy demand is forecast to grow at 0.7 per cent up to 1990. This is less than half the forecast rate of GDP growth.

* UK Energy Prospects, Cambridge Econometrics, PO Box 114, 21 St Andrews St, Cambridge CB2 3JW

Councils hold down rises in rates

By ROBIN PAULEY

RATES (property taxes) in England are likely to rise by an average of only about 8 per cent in 1983-84 in spite of the fact that local councils are budgeting to exceed Government targets by £1bn for the third consecutive year.

However, more than half of the overspend will be accounted for by just eight of England's 400 authorities - the Greater London Council, the Inner London Education Authority and the six metropolitan counties.

These councils, along with all other

councils, are benefiting from a combination of fortuitous factors which have all come together:

- Millions of pounds of cash is available from 1982-83 budgets and rate income because interest rates fell faster than expected.
- Millions more is available because inflation has fallen faster and lower than budgeted.
- The Government, anxious for low rates before an election, has again increased targets by an extra £1bn and organised grant distribution and penalties so that most

councils fare quite well while only a very few do extremely badly.

The result is that without cutting services, or manpower or improving efficiency some councils can cut their rate bills and most others can contain their rises to single figures.

The average domestic rate payment in 1982-83 of about £275 should remain under £300 at about £285 in 1983-84. The average bill in metropolitan areas could rise from £272 to about £300 and in inner London the average bill could be up from £450 to just under £500.

BSC 'reneged over arbitration'

By OUR LABOUR EDITOR

MANAGERS in the British Steel Corporation have accused their employers of reneging on a commitment to accept binding arbitration on wage talks which broke down - a tactic practised by the unions in the recent water industry dispute and roundly condemned by the Government.

Mr Frank Collins, general secretary of the 8,000 strong Steel Industry Managers' Association (SIMA), said yesterday that BSC had written to him saying it "will come to a view" on arbitration. However, the terms of a 1980 agreement between SIMA and BSC say both parties must go to arbitration if one demands it.

Mr Collins says he will write to Prime Minister Mrs Margaret Thatcher and to Mr Norman Tebbit, the Employment Secretary, to pro-



Mr Norman Tebbit

test over the breach in the agreement.

He said: "I will say that a state industry is flouting the kind of agreement which Ministers have said it is very important to observe."

SIMA called for the pay talks to go to arbitration some two weeks ago.

Mr Tebbit was known to be particularly critical of the water unions' breach of the agreement to accept binding arbitration.

Soon after the ending of the water dispute, he told a Commons select committee that the experience had prompted the Government to consider a plan for curbing strikes in essential services.

It is likely that BSC is stalling on arbitration until it gets agreements on this year's pay round with other unions which do not have an arbitration agreement. BSC has said it cannot afford to make a national wage offer, but is prepared to talk about local productivity payments.

The managers are claiming a "modest" increase within the Government's 3.5 per cent guidelines.

Record business failures

By DAVID DODWELL

BUSINESS failures in the UK reached record levels in February, with the engineering and metals and the building and construction sectors facing the severest difficulties, according to Trade Indemnity, the leading credit insurance underwriting company in the UK.

A total of 349 Trade Indemnity policy holders reported business failures last month - about 7 per cent worse than February last year, which was the worst month throughout last year for company failures.

When added to failures in January, the latest figures show a 29 per cent rise above those of the same period last year.

Almost a quarter of the failures (77) were accounted for by engineering and metals companies. This was almost double the number reported in this sector in February last year.

In building and construction, the deterioration was much less marked, but with 69 failures reported it was second only to the engineering and metals sector for its total of collapses.

The bright two spots were in textiles and clothing, where failures totalled 41 - nearly one third down on February last year - and the furniture and upholstery sector, where failures were reduced from 48 to 38.

Seamen in jobs summit

By BRIAN GROOM

SEAMEN'S union leaders from 12 European countries, including Britain, will meet on board a Finnish ferry on the Baltic Sea this week to thrash out a response to the shipping crisis which has resulted in the loss of 75,000 jobs in the past two years.

The conference is to be held by the International Transport Workers' Federation (ITF). Mr Ale Seander, ITF assistant general secretary, said yesterday the meeting might decide to intensify the fight against flags of convenience. One suggestion is that vessels could be blacklisted until owners met "unpaid wages" to their low-wage Third World crews.

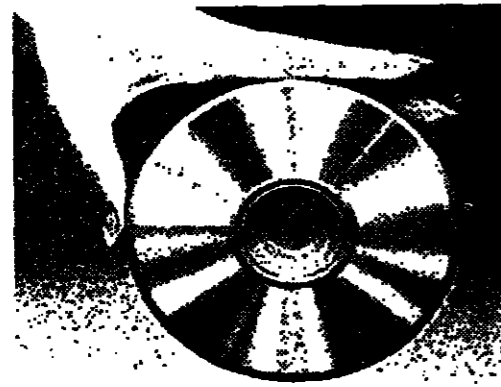
Decisions may also be taken on the terms on which unions would allow ships to transfer to foreign flags; financial aid to shipowners which unions would like to see linked to agreements on remaining within European national registries; and reduced taxation for seafarers.

The controversy over cheap Third World crews in European fleets - notably the British and Dutch - has been heightened by a proposal from an ad hoc ITF committee for a phased strategy to ban Western merchant navies from paying non-domiciled seamen less than their own nationals by July 1, 1988.

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UK NEWS

EEC plans new rules to close car price gap

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

THE European Commission will publish a draft regulation next month which, among other things, is designed to bring new car tax-free prices within the Community closer together. Complaints about the high price of cars in Britain led to the action.

The regulation would allow unofficial traders to enter the market and undercut the official dealer networks if there is more than a 12 per cent difference between prices from one EEC country to another.

It would also insist that all manufacturers should supply right-hand-drive cars to any of their Continental dealers as long as the dealer had a customer's order.

These points were made at the weekend by Mr Klaus Stöver, representing the Competition Policy Directorate of the European Commission at a seminar jointly organised by the UK Motor Agents' Association and the European Democratic Group of European MPs.

Mr Stöver, who stressed he was speaking in a personal capacity, said the motor industry had the most restrictive distribution system in Europe - with the Commission's blessing - and it was inconceivable that the system could be allowed to continue when there were such major price differences between markets.

The Commission's objective is to put the regulation into effect in January next year but the industry says this will not allow time for consultation and the schedule is too tight.

The manufacturers' view was given by Mr Hans Glatz, secretary general of the CLCA, the EEC automobile industry's liaison committee. He insisted that the Commission was attempting to deal with symptoms rather than the underlying causes.

Price differences were a reaction to market conditions. For example, where taxes on cars were high - such as in Denmark where car tax was 200 per cent or more - the manufacturers had to keep net prices low to maintain any sales or network at all.

The Commission was also ignoring the intense competition between the EEC manufacturers, he maintained.

There were heated exchanges between some of the motor agents and Mr Tony Venables, director of BEUC, the EEC consortium of organisations.

Mr Venables claimed the British consumer had already benefited

from the publicity given to unofficial car imports from the Continent by the consumer organisations because during the past year new car net prices in the UK had not risen at the same rate as those in Continental markets.

The number of cars brought into Britain unofficially, however, had not been large enough to damage the official dealer networks.

Mr Venables produced a table of comparative car prices in the UK and Belgium. This showed the average difference had been reduced from 35 to 21 per cent since June last year "but it is still of advantage to UK consumers to buy cars abroad, depending on the particular model".

Mr Philip Stein, the MAA's public relations director, accused the consumer associations of being "totally irresponsible" in encouraging car buyers to use unofficial channels "in spite of the risks involved and the potential damage to the official networks".

Another MAA member said BEUC was wrong to compare list prices because large discounts on list prices were common in Britain and not in Belgium. "You could save as much by getting a discount in Britain," he claimed.

JAPANESE-OWNED UK COMPANY SELLS TO THE PRICE-CONSCIOUS

Boom in re-exported East bloc vehicles

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

ANYONE looking for a prime example of the complexities of world trade in cars need look no further than the Japanese-owned company which is importing Polish and East German cars to Britain for re-export to developing countries.

Automotive Distributors (AD), based at Tunbridge Wells, Kent, is 60 per cent owned by C. Itoh, one of the top half-dozen Japanese trading houses, and 40 per cent by Tozer Kemsley and Milbourn, the UK-based international trading group.

AD imports Mazda cars from Toyo Kogyo in Japan, cars from Poland's biggest factory, the FSO

plant near Warsaw, and also a few from the Wartburg company in East Germany.

Wartburg cars can no longer be sold in Britain because they do not meet the necessary technical standards. AD, however, is maintaining contact with the East German factory by buying and re-exporting a few to some small markets such as Egypt and Saudi Arabia.

Wartburg has been working on a new and modern car - with some help from West Germany's Porsche company - and officially this should be launched next year.

Seasoned Eastern Europe-

watchers reckon this really means 1985-86. When it does appear, AD wants to import it to Britain.

Last year the company sold nearly 4,000 FSO vehicles in the UK, including 350 which did not show up on the British registration statistics because they went to American servicemen in Britain.

Marketing director Mr Graeme Millar says that since AD started that particular business last spring, sales of the Polish cars to Americans have been running at 70 a month.

This year AD hopes to import up to 6,000 FSO cars - once known as

Polski-Fiats - to Britain and a further 2,500 for re-export, mainly to the Gulf states. Saudi Arabia will probably account for 2,000.

Production at the FSO factory fell to only 71,000 last year, but general manager Mr Edward Pietrzak expects output to recover by 20 per cent in 1983 to 85,000, according to Polish press reports.

Mr Pietrzak also says there is no shortage of materials or components now and that FSO is keen to return to the 1979 production level of 118,000.

Everywhere it sells the East Eu-

ropean vehicles, AD goes for price-conscious customers. Sales in Saudi, for example, are mainly to "guest workers" who do not want to splash out on an expensive car while on a short-term contract.

In Britain the FSO range starts at £2,549 and is undercut only by other East European offerings such as the Fiat 126, made in Poland, and the cheapest Skodas from Czechoslovakia. Although AD missed its target of 4,500 sales in the UK last year, its dealer network expanded from 120 to 180 by the end of the year.

Tax haven laws: a question of motive

BRITAIN'S BUDGET is now just over a week away, and if there is no general election in June, it is likely that the Chancellor of the Exchequer will at long last give the green light for legislation to combat tax haven abuse by multinationals.

In a 125-page consultative document published last December, the British Government said its aim was to remove the tax advantages which may be obtained by UK companies accumulating income in foreign subsidiaries located in low tax areas or artificially diverting business profits to such companies.

Five particular types of offshore company are identified as being used currently to achieve these objectives: money-box companies, dividend trap companies, captive insurance companies, invoicing or service companies and patent holding companies. I do not think any honest tax adviser could deny that offshore companies are being used for these purposes, although the scale of their use may be less than the Inland Revenue imagines.

The Revenue estimates that the use of tax haven companies accounts for a tax loss of around £100m a year. In terms of total government revenues this amount is trifling, but will legislation increase the tax collected by this amount as

companies affected will take counter-measures. The legislation must, therefore, be primarily intended to deter, and to demonstrate to other taxpayers, such as those on PAYE (income tax deducted from wages), that companies will not be permitted to avoid their fiscal responsibilities by the use of artificial offshore arrangements.

TONY HUGHES, international tax manager in the London office of Deloitte Haskins & Sells, examines draft UK legislation on tax havens.

Unlike the earlier draft legislation on upstream loans - thankfully now postponed - the new proposals are not riddled with drafting anomalies. Moreover, there is a growing recognition among the business community that some form of tax haven legislation is inevitable. That said, there are a number of objectionable features about these proposals and it would be most unfortunate if they became law.

The proposed tax haven charge will only be made on a direction by the Revenue and will only apply to a UK resident company, which has at least a 10 per cent interest in a controlled foreign company (CFC) resident in a low tax country. A foreign company will be a CFC

if, broadly, more than 50 per cent of its share capital is held by UK residents. A low tax country is one where the local tax paid is less than half of what the UK tax would have been if the CFC's profits (excluding capital gains) are computed according to UK tax rules. The Revenue has promised to publish a list of non-low tax countries which will be helpful (although if such countries as the Netherlands and Luxembourg are included we must expect that holding companies which enjoy special tax privileges in these countries will be specifically excluded).

The measure of the tax haven charge will be the UK company's share of the CFC's corporation tax liability computed according to UK rules.

There are three defences open to a UK company that is at risk: ● The acceptable distribution test is satisfied where the CFC remits to the UK 50 per cent of its profits available for distribution as shown by its accounts (or 90 per cent if it is a non-trading company). This de-

fence will not be of much help where there are commercial or legal reasons for the retention of profits in the CFC or where there is a substantial foreign minority shareholding which makes the remittance test impossible to satisfy; ● The exempt activities defence is intended to exempt certain bona fide trading companies. Although

most overseas manufacturing and industrial companies should satisfy the test, many financial companies may not be able to do so as they have much more stringent conditions to meet; ● There is the motive test which should, in principle, exempt those CFCs which have been set up for a bona fide business purpose with no tax avoidance in mind. As drafted, however, the motive test is far narrower than this.

I believe the motive test plays a key role in the proposed legislation and its narrow scope, complexity and ambiguity is most unsatisfactory. In the words of the Dell report, it is not intended to be a "last ditch" defence but a valid defence in its own right. It is on this basis that the Revenue justifies the limited scope of the other two defences. In my view, it is essential that the motive test be one on which businessmen can rely with confidence. As presently drafted it singularly fails this requirement. Primarily this is because of the uncertain scope and meaning of various new concepts which the test introduces into law (such as "diversion of profits" and "reduction in tax") which require the use of a crystal ball. The "diversion of profits" test, for example, may require the taxpayer to consider what would have happened to his business had he not established a CFC and, possibly, had instead set up a new company in the UK. Furthermore, the right to appeal against the view taken by the Revenue as to whether a taxpayer satisfies the motive test is very restricted. I have singled out the motive test for criticism, but there are other matters, such as the wide discretionary powers given to the Revenue throughout these proposals, which should give both the general public and tax practitioners alike cause for concern.

Tony Hughes was a member of the Institute of Fiscal Studies working party to consider Revenue offshore tax proposals.

PRE-TAX CAR PRICES IN BELGIUM AND UK

	UK net price (£)	Belgium net price (£)	Difference net price (£)	Difference (as % of UK price)
Audi Metro 1000 MLE	3,451	2,609	842	24
BMW 320	8,899	5,370	3,529	39
Fiat 127 1.3 Sport 1.9	3,411	2,858	553	16
Ford Escort 1300 1	3,420	2,875	545	16
Ford Granada 2300 GL	3,336	3,069	267	8
Jaguar XJ6 111 4.2A	7,470	5,170	2,300	30
Lada 1200 break	12,108	10,901	1,207	10
Mazda 323 GT 1.5	2,243	1,706	537	24
Mercedes 230 E	4,334	3,167	1,167	27
Porsche 924 S	8,016	7,236	780	10
Porsche 924 S	5,494	4,213	1,281	23
Renault 5 GTL	8,883	7,987	896	10
Renault 5 GTL	3,406	2,625	781	23
Renault 5 GTL	6,297	4,806	1,491	24
Renault 5 GTL	11,157	7,500	3,657	32


Source: BEUC

"It's got to be coal if you wish to remain competitive in both national and international markets."
Herman Scopes, Director, ICI Petrochemicals and Plastics Division.

"Coal is an efficient and economic solution to rising energy costs."
Jim Bisset, Director, The Whitecroft Group.

"Coal-fired fluidised bed combustion provides a simple and cost saving solution to heavy fuel oil prices."
John Denton, Works Director, The Ketton Portland Cement Co. Ltd.

"Coal is uncomplicated, it is easy to burn."
Mike Gray Group Energy Engineer, Dunlop Limited.



OIL OR COAL?

TALK TO THE CONVERTED.

In any discussion on the choice of fuel there's one fact that emerges head and shoulders above the rest.

Coal is a considerably cheaper fuel than either oil or gas.

THE CHANGING FACE OF COAL

There have been some impressive advances in boiler technology combustion techniques and methods of coal and ash handling.

It's now possible to operate in excess of 80% thermal efficiency. Equally surprising is that in modern installations coal and ash are seldom seen and rarely touched by hand.

COAL, OUR ENERGY LIFELINE

British Industry needs a modern, reliable and economical fuel to replace those that will

dwindle in supply

Coal is that energy lifeline.

We are fortunate enough in Britain to have the resources to supply industry with coal for the next 300 years.

At the Vienna Conference all EEC member countries agreed to reduce their reliance on imported oil; coal - the major alternative - makes Britain well placed as the largest and most efficient producer in Western Europe.

Fine, you say, but what about the cost of converting to coal?

THE 25% GOVERNMENT GRANT SCHEME

Basically this scheme can provide for up to 25% of the total project capital cost of making the change to coal.

All companies in the private manufacturing and most service industries are eligible, providing that oil and/or gas has been used to meet at least 75% of the process steam or heating requirements over the previous year.

HELP FROM ALL QUARTERS

Further beneficial funding is now available through the EEC. And the NCB is willing to enter into favourable medium and long-term supply arrangements with individual customers. In addition there is a nationwide network of coal distributors who are strategically situated to give advice and provide an efficient delivery service to industry.

It is within the power of coal to make British Industry more efficient, more cost-effective, more

competitive in world markets.

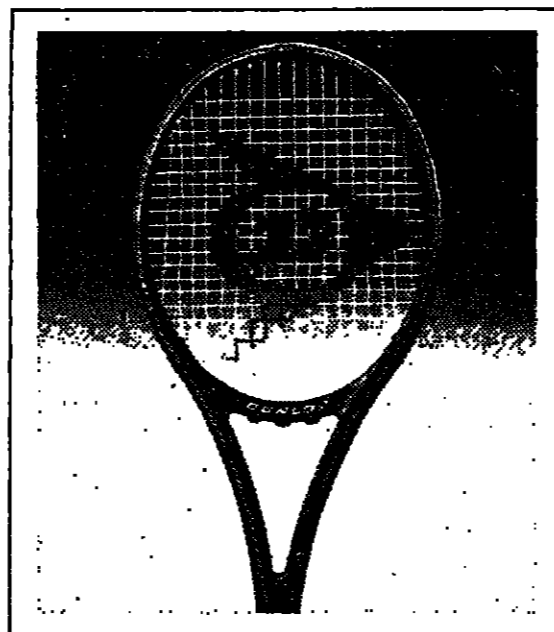
For further information please fill in the coupon and send it to the National Coal Board, Technical Service Branch, Marketing Department, Hobart House, Grosvenor Place, London SW1X 7AE.

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Company	
Address	
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Coal. The fuel with a future.	

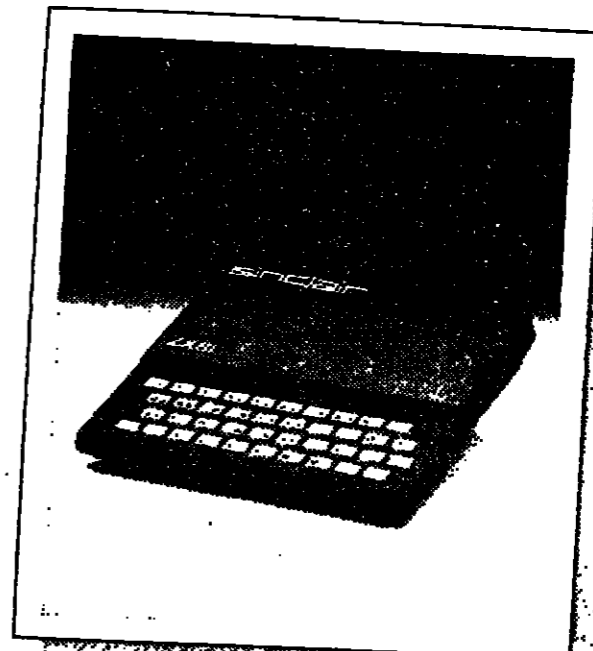
IT'S NOT THE BEST OF BRITISH LUCK. IT'S THE BEST OF BRITISH DESIGN THAT MAKES THEM SO SUCCESSFUL.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
British Leyland's Range Rover.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The Dunlop Max 150 G Carbon Fibre Tennis Racket.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The Sinclair ZX81 Computer.



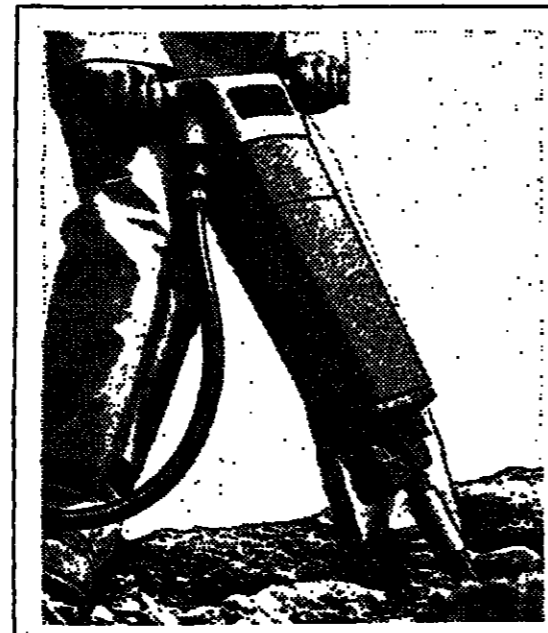
A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The Westland 30 Helicopter.



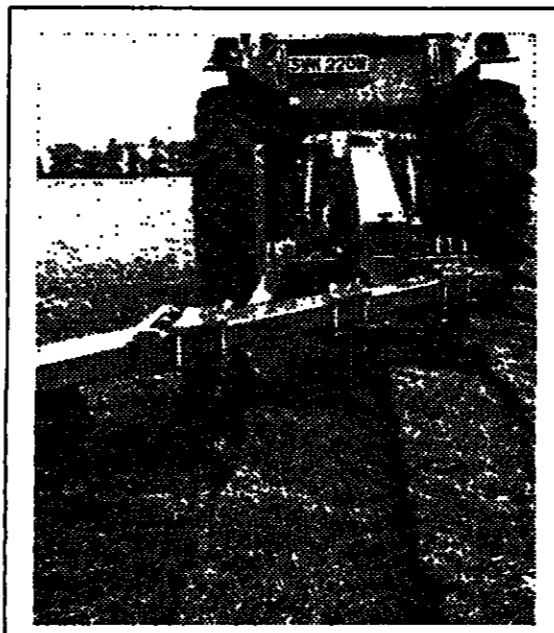
A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The JCB 3CX Excavator Loader.



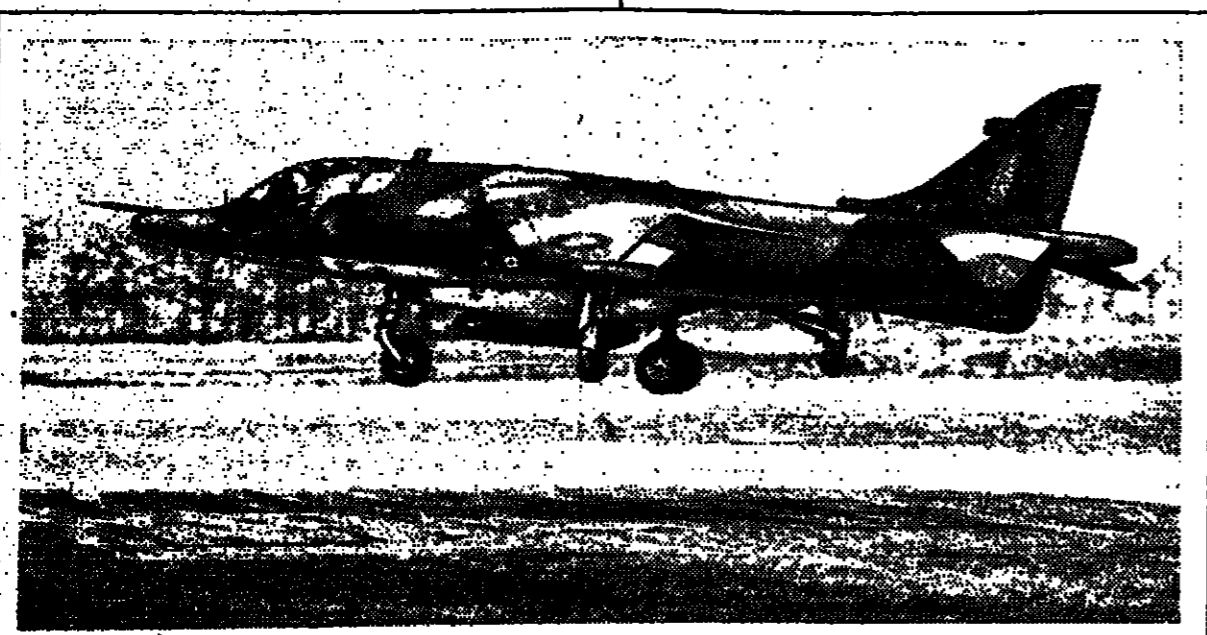
A BRITISH DESIGN. A BRITISH SUCCESS STORY.
Baird & Tatlock's Flatspin Magnetic Stirrer.



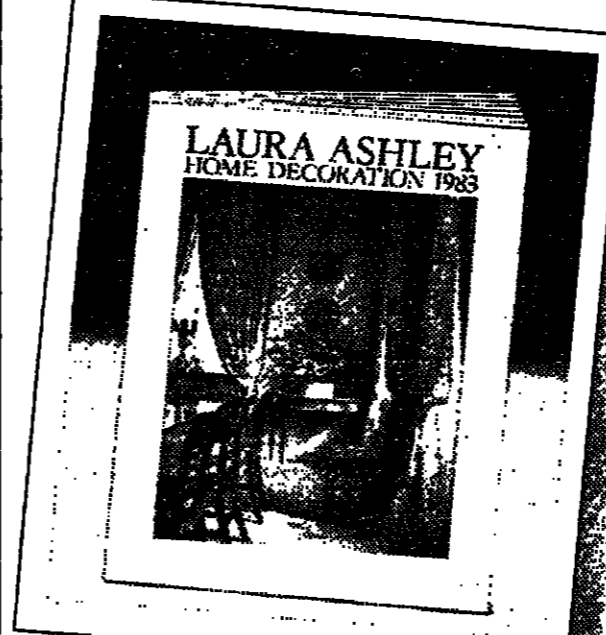
A BRITISH DESIGN. A BRITISH SUCCESS STORY.
CompAir's Zitec 20 Road Breaker.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The Paraplow from the Howard Rotavator Company.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
The Rolls-Royce Pegasus Vectored Thrust Engine for the British Aerospace Harrier.



A BRITISH DESIGN. A BRITISH SUCCESS STORY.
Designs from Laura Ashley.

These companies aren't successful because they're lucky. They're successful because they make their own luck.

By using good design.

Yet too many British managements don't seem to appreciate this very basic fact: if you don't start with a good design you don't end up with a good product. And you don't make a profit.

It's a sad state of affairs that so many British companies can't stand up to foreign competition because they pay too little attention to design.

Yet in Britain we have some of the best in-house and consultant designers and engineers in the world. They're experts in every aspect of design and development. That means ease of manufacture and reliability, as well as appearance.

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You only have to look at these success stories.

Isn't it time you followed their example—especially when the Government is prepared to back you—not just with words but with practical and financial help.

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The Department of Industry is funding a new scheme for design consultancy through the Design Council.

One of the Council's design advisory officers and an independent senior industrialist will visit you. They will then find you a consultant with the right design experience.

If you employ between 60 and 1,000 people, you could have up to 15 days' free design consultancy and a further 15 days at half price. And there's a Technical Enquiry Service for smaller firms.

We'd like to tell you all about the schemes. Just telephone John Benson on 01-930 8655. Or send for our leaflet.

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TECHNOLOGY

EDITED BY ALAN CANE

KAWASAKI ANNOUNCES SMELTING REDUCTION PROCESS

The 'less fussy' blast furnace

BY CHARLES SMITH IN TOKYO

EVER SINCE the invention of the blast furnace as the basic tool for making pig iron from iron ore, steelmen have been bothered by one basic problem. Blast furnaces require iron ore which is lumpy enough to leave room for the circulation of air during the smelting and reduction process. Yet much of the ore produced by the world's iron mines is powdery.

A new iron making process which can use fine ore, and which accordingly cuts out the need for costly processes such as sintering or pelletising, has just been announced by Kawasaki Steel Corporation.

The Kawasaki process, known as the smelting reduction process for fine ore, involves the same basic metallurgical changes as those that go on inside a blast furnace. The difference is that it splits them into two, and by so doing, produces a system that is less fussy about the type of inputs, both of coal and iron ore, that can be accepted.

Mixing

Stage one of the Kawasaki operation consists of a pre-reduction furnace in which about 70 per cent of the oxygen contained in raw iron ore is removed through indirect reduction (in lay terms this means that reduction takes place by mixing the ore with gases rather than by direct carbonisation). In stage two the remaining 30 per cent of the reduction process is accomplished directly (i.e. by carbonisation) along with the smelting process that separates pure iron from impurities.

Apart from the fact that the Kawasaki process divides into two stages a job which the blast furnace combines in one, the method features important differences in the ways in which coal and ore are charged into the furnaces. In a conventional blast furnace iron ore and coal are stacked in layers with the lower layers coming under tremendous pressure from the piled up coal and coke above them.

In the Kawasaki process coke is fed into the top of the main furnace while partly reduced iron ore and a mixture of hot

air, oxygen and pulverised coal are channelled in (at speeds that are just short of supersonic) from two sets of tubes or "tuyeres" in the side of the furnace.

The height of Kawasaki's main furnace is about half that of a blast furnace of similar capacity which should mean, the company says, that the danger of coke being crushed at its lower levels is much less. This makes possible the use of low grade coke which would not be able to withstand the pressures at the bottom of a 30 metre high blast furnace.

An essential part of the Kawasaki two-stage reduction and smelting process is a device at the bottom of the pre-reduction furnace, known as a fluidised bed, which introduces air into the bottom of the furnace and keeps in motion the fine ore that is being processed. Kawasaki says there is nothing novel about fluidised beds as such but that to combine the process of fluidising with that of smelting turned out to be extremely tricky.

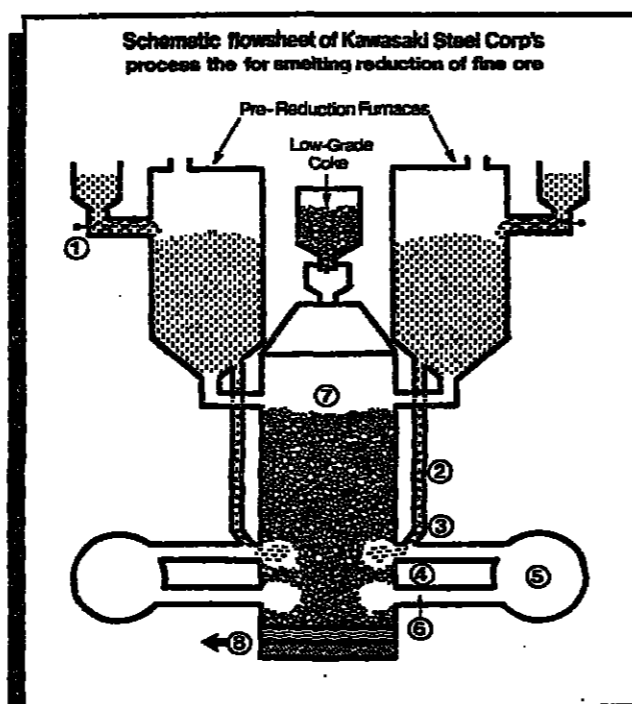
Tests on the fluidised bed used in the Kawasaki system took up a large part of the more than ten years Kawasaki needed to develop its new process.

Kawasaki claims that adoption of its smelting reduction process would save about 15 per cent of the costs of making iron through the conventional process, apart from running costs, the system would also offer a major saving on capital outlays. This would come from the fact that a steel plant making iron by the Kawasaki method could dispense with a sintering plant, as well as with the extremely bulky anti-pollution equipment needed to clean up after the sintering process.

Adapted

Kawasaki estimates the cost of building a sintering facility at a big steel works in Japan today at between Yen 20bn and 30bn (about \$60-90m). Another Yen 10bn or so would normally be needed to install a desulphurisation plant, the company estimates.

A final point about the Kawasaki iron making process is that it could, the company



Key to diagram: 1. Fine ore is charged into the furnace without prior agglomeration. 2 and 3. Injection of pre-reduced iron ore from the furnace tuyeres. 4. The dual tuyeres. 5. The main pipe for injection of hot blast of air. 6. At this point the hot blast of air contains oxygen and pulverised coal. 7. The main smelting reduction furnace and 8. The slag, molten iron/ferro alloys

claims, be easily adapted to the refining of ferro alloys, where it would mean that coal became the main energy source instead of electricity.

Japan's prohibitively high electricity costs have almost ruined its small ferro alloy industry (as well as the much larger aluminium industry). Kawasaki says the energy bills for its coal fired method of producing ferro alloys would be about 50 per cent less in Japan than those for the conventional electric powered process.

Although Kawasaki claims to be 100 per cent satisfied with the workings of its new method under test conditions (at a pilot plant built last year at its Chiba works) the company still has to build a demonstration plant that will reproduce conditions in a full-sized steel works and demonstrate that the system is commercially viable.

Kawasaki expects to have a

100 tons per day demonstration plant operating in three to five years time. If that turns out all right there should be no problem about stepping up capacity by a factor of roughly 100 to achieve the capacity of one of today's big blast furnaces.

Like a number of other recent technological "breakthroughs" announced in Japan the new Kawasaki process owes something to Europe. Swedish steel companies have introduced a number of versions of the smelting reduction process during the past 10 years and Kawasaki engineers undoubtedly benefited from a study of these.

What Kawasaki claims for its own system is that it uses coal, instead of the electrically generated plasma that fuels the Swedish systems. Without this change, as Kawasaki points out, the process could never have been viable in Japan.

SWEDISH COMPANY BOOSTS PURIFICATION WORK

Biotechnology transition to full-scale production

BY ELAINE WILLIAMS

IN THE end the products we help to make end up inside someone. You always have to remember that." So says John Curling, general manager of Pharmacia Fine Chemicals' large scale chromatography unit.

His division at Pharmacia Fine Chemicals, which is part of the Swedish pharmaceutical group, is increasing its activity in industrial purification of biotechnology products. It is helping some of the major biotechnology companies make the difficult transition from laboratory preparation of biological products such as insulin, human growth hormone and interferon to full scale production.

John Curling boasts that most of the major biotechnology companies are customers. Now Pharmacia is spending between SKr 400m and SKr 500m over the next two years on buildings and equipment in Sweden, the UK, the U.S. and Japan to serve the growing needs of biotechnology companies.

It has also made company acquisitions to bring in any expertise it does not have already. For example, in December last year Pharmacia Fine Chemicals acquired PL Chemicals, a maker of some of the starting materials in biotechnology such as enzymes and recombinant DNA. It was previously owned by Papst in the U.S., a major brewery group which set up PL Chemicals originally to developed brewing yeasts.

Also in 1982 the group entered into a six-year development programme with Uppsala University. This is jointly funded by STU, a Swedish government agency. The aim is to provide basic research in molecular biology which can help both the company and the country acquire the know-how it needs in biotechnology. With it Fortia hopes that new products can be developed so that it can help increase its market in the growing biotechnology industry.

The new group of about 50 scientists hopes to fill in the gaps in knowledge in cell and molecular biology. The group has total funds of SKr 36m and it is headed by Professor Per Petersson. Some of Pharmacia's staff will work in the team so that contact between the university and the company will be close.

Recently a new company, Bionova was set up by the Pharmacia group of which Dr Robert Bywater is research manager. This will be the link organisation. Many of Pharmacia's most important products have come through such personal contacts.

Dr Bywater, who was seconded from the Fortia group to work as part of the research team at Uppsala University's Wallenberg Laboratory, said: "The agreement with the government created a lot of resentment among other Swedish pharmaceutical companies. I am afraid they will just have to live with that. We simply thought of the idea first."

Pharmacia Fine Chemicals itself is one of the leaders in separation technology. This includes all the chemical reagents, accessories and instrumentation needed to identify, isolate and purify many biological products such as proteins and nucleic acids. Though sales from this company in 1981 accounted for only 20 per cent of the group, with pharmaceuticals and diagnostics, providing the remainder, Fortia Pharmacia regards its expertise in separation technology as critical to the success of the group as a whole.

Technique Many of the products of the Pharmaceutical division use separation techniques extensive as it did when it developed Healon, a drug for use in ophthalmic surgery.

Pharmacia specialises in standard liquid chromatography. This is a technique which is widely used in biotechnology and is now being scaled up to meet industrial needs.

In essence, liquid chromatography is based on a single principle. This is to pass a solution containing the different substances which are to be separated through a column of densely packed particles (in Pharmacia's case it is usually tiny beads of dextran).

As the different molecules move down the column their progress is impeded to different extents, so that one molecule will take longer than another to leave the column so that they can be separated. Liquid

chromatography can make use of one or several characteristics of a particular molecule so that the wanted substance can be purified. Such characteristics range from its size, shape, and isoelectric point to attraction to other molecules.

One of the newest of these techniques is affinity chromatography which is based on the attraction of, for example, of an antigen to an antibody or an enzyme to an inhibitor. This allows scientists to be very specific about the substance to be isolated and purified.

Pharmacia is not alone in the separation market and faces strong competition from a number of companies such as Bio-Rad Laboratories and Millipore in the U.S., Mr Carl-Eric Sjöberg, vice-president of the Fortia group said "We are fighting much bigger companies than ourselves so we need to concentrate on individual projects which make it difficult for the competition." To do that Fortia has to combine areas of knowledge which are spread throughout the companies in the group.

Increasingly, Pharmacia Fine Chemicals has turned its attention away from serving the academic research market to companies such as Eli Lilly in the U.S. and Novo in Denmark which is moving out of the laboratory stage for insulin production into manufacture. At present 40 per cent of its business is to industry, the rest in research. Few years ago it was only 10 per cent industrial work.

Help for golf addicts

Accuracy and distance with new Dunlop range

Dunlop has launched a new range of golf clubs designed to help the handicap golfer achieve greater distance and accuracy without the need to alter his natural swing.

All the woods are more lofted than standard clubs and this lowers the impact point on the ball, reducing sidespin and slice. The woods

Total capability in construction.



The growing importance of industry is highlighted by a comment in Genentech's 1981 annual report which said: "Recombinant DNA—the driving force of biotechnology presents more opportunities than any one company can address." However, the report continues: "Laboratory creation of a new product is the first step. It begins to count only when the product is purified and packaged."

For such companies, scaling up the production of products made using biotechnology has been hindered by extracting the wanted material from its tiny chemical cell factory and its subsequent purification. The wanted product is mixed in with all the cell debris plus several other, perhaps potentially dangerous by-products.

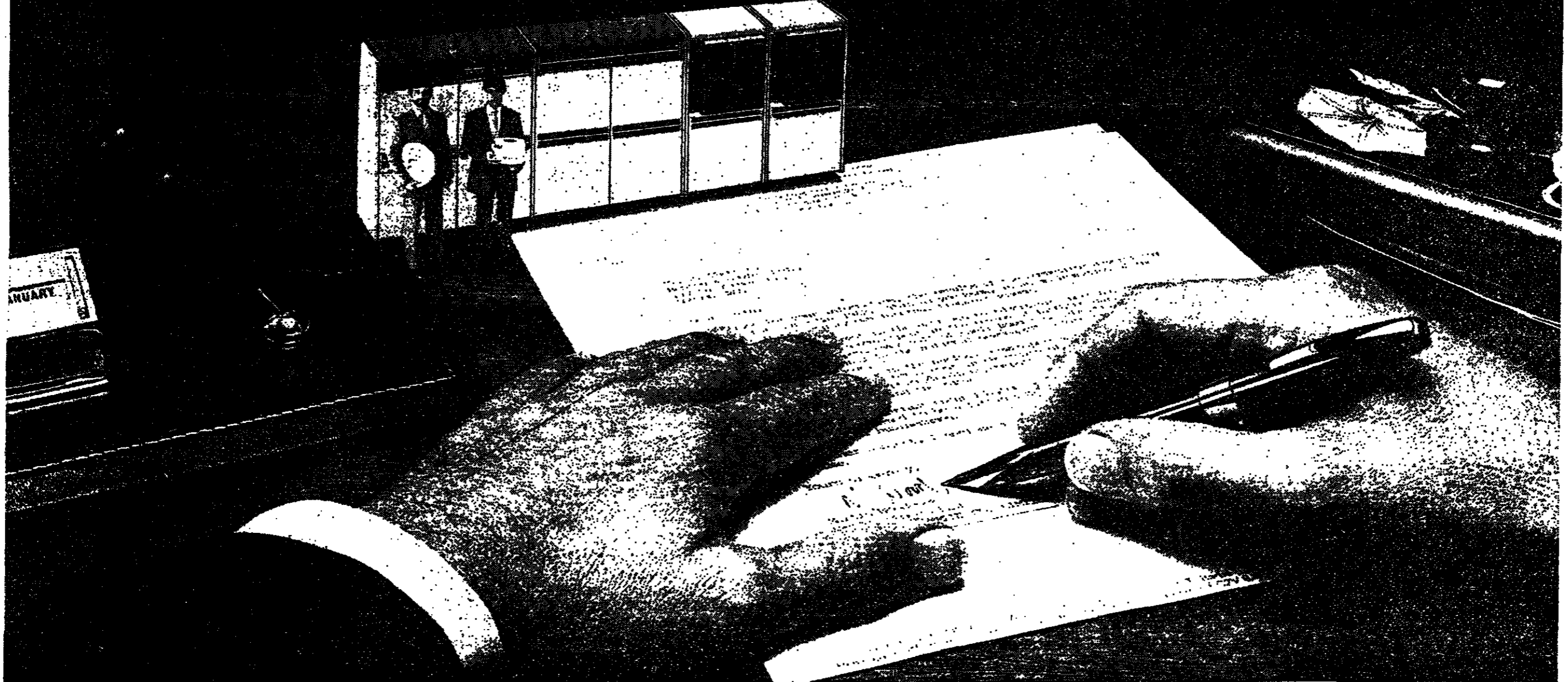
As Duncan Low, marketing services manager of the large scale chromatography put it: "You are faced with getting out the product you want from something that is the consistency of soggy porridge."

From this soggy mess must come an extremely pure product and Pharmacia Fine Chemicals has a clear programme of design of industrial equipment.

It is involved with many companies in a number of major and pilot plants throughout the world, and see the thrust of its growth coming from this market. Last year the Fine Chemicals group grew by about 35 per cent and is looking forward to the biotechnology boom when it finally does take off.

It is expected that its financial results, due out this week will reflect this.

Mountains can be moved.



In the sixties there was a mountain of machinery in the computer room called a mainframe. It didn't move.

And people queued to have their data processed by the computer room staff.

Then, in the seventies, distributed minicomputer systems put terminals at every desk. And interactive computing came of age.

But now companies need computers that combine the development facilities of a mainframe with the flexibility and

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THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

AMONG the ships stranded in Luanda harbour during the closing stages of the Angolan civil war in 1976 was a freighter carrying 35 Jeep-type vehicles made by the little-known Brazilian company of Gurgel.

Trading on the old colonial link between the two countries, Gurgel had built up a modest business in pre-independence Angola. The company's two-wheel drive vehicles were more costly then—but they were both more comfortable and more durable than today's version. They were also more economical to run than their main competitor, the vintage American Willys Jeep of second World War fame.

For a company founded only in 1969 with a bank loan of \$5,000 the loss of the 35 vehicles sent to Angola could have been serious. But as it turned out, the war there resulted in the vehicle manufacturer's largest ever single order.

The marxist-led MPLA, in control of Luanda and well on the way to winning the war against its Western-backed rivals, mounted machine guns on the Gurgel vehicles and sent them into action. "One of their first actions on taking power was to order another 200," Antonio Carlos Cardoso, Gurgel's young export sales manager, says proudly.

The X-12, as Gurgel names its vehicle, was responsible for 80 per cent of the company's total sales last year of 1,256 vehicles. About a quarter went abroad.

A gaily-striped, canvas top version is popular in the Caribbean as a tourist rental car. In fact the company claims that the majority of the cars running around on the tiny island of Saint Martin in the British Virgin Islands carry the Gurgel emblem.

Exports, usually in small numbers, have gone to 45 different countries. Peru and Lebanon, among others, have bought the military version.

The figures indicate the belief of Joao Conrado do Amaral Gurgel, the company's founder and chief shareholder, that he could take on the multinational vehicle manufacturers dominating the large Brazilian market and hold his own on his chosen ground.

"I decided to go for the smallest segment of the market," says Gurgel, 56. Jeep-type vehicles make up only a half of 1 per cent of all vehicle sales in Brazil, and competition—in the shape of Ford, which imports Willys Jeeps, and Toyota—is regarded by Gurgel as weak.

How a Brazilian car maker has carved a niche in a specialist market

Andrew Whitley reports on Gurgel, the man and the company



Joao Conrado do Amaral Gurgel with his new model, the XEF executive urban car, and the Itaipu, an electric-powered van

Once Ford of Brazil's highest paid engineer, the U.S.-trained Gurgel decided 13 years ago to break out on his own, to make cars of his own design in association with Volkswagen do Brasil, the leading local manufacturer and still his main components supplier.

It is a link which has stood Gurgel in good stead, extending from the supply of engines and transmissions to "piggy back" transport arrangements and dealerships. In the near future this unlikely seeming couple are to team up in a joint venture assembling Gurgel models in Indonesia.

The early key to the small Brazilian company's success was Gurgel's own development of a

"monoblock" chassis composed of laminated steel and plastic. All Gurgel vehicles also use glass fibre for their bodies.

The formula creates highly economical, almost indestructible vehicles which have a very high resale value within Brazil.

"An American visitor recently told me the durability of our cars was too long," says Gurgel, grinning. "We give them a guarantee for 100,000 kilometres, but their average life is 13 years."

Within Brazil, the Gurgel vehicle has successfully exploited an image of exclusivity and fashion, reflected in a high price tag.

The basic, unadorned version of the X-12 now costs

Cruzeiros 2.5m (\$6,460 after the recent devaluation). In contrast, Fiat's 147 model and General Motors' Chevette, the cheapest cars available in Brazil, are a good one third cheaper.

The front entrance to the Gurgel premises, a red brick factory set in the rolling green hills of Sao Paulo state's rural interior, boasts the sign that spotlights another facet of the company's ingenuity: this is indeed "the first electric vehicle factory in South America."

The Brazilian inventor claims to have achieved the weight/range breakthrough which vehicle manufacturers around the world have been striving to achieve with electric propulsion.

And it is this aspect of the company in particular which has caught the imagination of the Brazilian press and government.

Based on the standard Volkswagen Kombi van, the Gurgel Itaipu E-400 is described as one answer to Brazil's fuel problems; it can draw on the country's abundant hydro-electric power and thus help reduce the heavy oil import bill and cut exhaust pollution. About a hundred of the electric vans have been sold since their launch a little over a year ago, mainly for use as service vehicles for public utilities.

One customer is Souza Cruz, the giant cigarette-making subsidiary of Britain's BAT Industries. For the past four months two Gurgel electric-powered vans have been in use with Souza Cruz's 1,800 strong delivery fleet.

Although it is still early days, Souza Cruz feels it has made a good investment. "We don't intend to change over our entire fleet. But they work satisfactorily in urban areas and we hope to buy more in future," says the company.

To survive and prosper in such a competitive field, especially with such low volume production, Gurgel has always been aware of the need to keep overheads down. In 1975 he moved out of Sao Paulo, where most of the other vehicle manufacturers are located, because "labour was too expensive and the workers' living conditions were too hard."

There are no assembly lines in the Gurgel plant, no transfer machines or other sophisticated equipment. Vehicles are assembled in "islands" by groups of workers, in a version of the system pioneered in Sweden by Volvo.

With the help of a capital injection of \$3m from the State Development Bank, the BNDES, Gurgel is to invest in new equipment this year, mainly in the paint shop, in an effort to raise productivity.

Over the past two years of recession for the industry, when the big Brazilian manufacturers—Ford, GM, Volkswagen—were caught up repeatedly in mass dismissals and strikes, Gurgel laid off no one. To strengthen further the bonds of loyalty he is now contemplating giving his workforce lifetime guarantees of employment.

To survive the collapse in demand which hit the entire vehicle industry in 1981 Gurgel moved heavily into specialised versions of his existing range, producing one-off vehicles for such uses as ambulances or fire engines.

For much of last year Gurgel was hard at work at his favour-

in place, the drawing board. The results are two new models just now coming into production: a versatile, cross-breed of a pick-up and a country cruiser, and a wide-bodied luxurious, three-seater designed as an office car for the chief executive who has everything.

Gambling on their acceptability, Gurgel is to double total production in 1983, from a current average of 150 vehicles a month to 320.

The Brazilian company is also going international this year, with Panama having been selected as the base for an assembly operation for the whole range of Gurgel vehicles, mainly for export to the Caribbean and other Central American countries.

With an initial investment of \$4m, the Gurgel company plans to produce 150 cars a month in Panama, rising later to 200. The saving in freight costs from Brazil to the Caribbean—Gurgel's biggest export market—is \$1,000 per car.

Gurgel has already proved he has market acceptability. But his investors are nonetheless a little nervous about the unorthodox way he goes about doing business.

The marketing and sales side of the company is distinctly weak, as Gurgel himself readily admits. Nor does the boss much like the world of finance—as is clear from his vagueness with figures.

Valbras, an investment bank in which Credit Commercial de France has a stake, has a 23 per cent holding in the company. A further 10 per cent is in the hands of private Brazilian investors, with the rest being held by Gurgel himself.

"Up to now we cannot say the investment has been worthwhile," a Valbras executive said privately. "There is much room for improvement. But the product is good and there is a market."

The problem is that the company is very much a one-man show, and for the past year or so Gurgel has been threatening to retire to his nearby mansion, to concentrate on designing and his inventions. He is already looking for new management to strengthen his small team.

So far the only wholly Brazilian vehicle manufacturer of any significance has not attracted any takeover bids, whether predatory or friendly. Presumably it has been considered too slight a challenge. But if the expansion plans and the Panama venture are a success, that judgment on the part of his bigger competitors could soon change.

Why Hyster plays the aid game

WHEN last month workers at Hyster's Scottish plant accepted a reduction in pay, the big U.S. forklift truck manufacturer not unnaturally aroused suspicions that it was taking unfair advantage of its staff in the unemployment blackspot of south west Scotland.

But Bill Kilkenny, the chief executive, maintains that his world-wide obsession with cost-cutting is for only one reason—to take on the Japanese. British and European forklift truck producers do not worry Hyster, the world's second largest producer (after Balkancar). It is Toyota, Komatsu, Toyota Uniponki TCM and Nissan that cause sleepless nights for Hyster's management.

Last month Hyster bought a centre page spread in an Oregon newspaper to spell out what it sees as the unfair coalition of Japanese Government, business and labour.

"The challenge presented to American industry by unfree and unfair Japanese trade practices is fast becoming a matter of national defence and economic survival," the advertisement warned.

"We are seeking to link government, business and labour together to combat the assault from Japan Incorporated and are building state-of-the-art plants and designing products to meet the needs of our customers worldwide at prices they can afford," it said.

The Hyster message also revealed the company's view of playing the regional aid game.

"Hyster believes it has a fiduciary responsibility to shareholders to pursue the financial assistance programmes that various governments offer," the ad continued.

The company says it has received commitments for grants and subsidies amounting to \$7.25m under various programmes from states within the U.S. and from abroad.

Probably £12m of this will come from the British Government. Alex Fletcher, the Scottish Industry Minister, fearing that Hyster might close down in an area where nearly one man in three has no job, managed to negotiate an aid package. The company offered to invest a total of £40m—to include the government aid—in Irvine and to generate about 1,000 more jobs by 1987 but this was dependent on the workers accepting the wage cuts.

Not spelt out was the obvious threat that Hyster would close the plant and look elsewhere if the plan were rejected. With only 48 hours to make up their minds, not one of the 502 workers opposed Hyster's proposals and only 11 failed to hand in their signed approval. But despite the grumbles of "unfair" and "blackmail" from the shopfloor and some Scottish politicians, Bill Watson, the Scottish manager at Irvine who had worked for Hyster in the U.S., was able to put the other side of the coin. "Bill Kilkenny is the guy I feel sorry for," he said, his accent moving back across the Atlantic. "He's the one with the pistol at his head who could see years of hard work going down the tube."

Within the past year Kilkenny has cut his company's international workforce of 9,000 roughly in half and closed or cut back five plants. Everyone in Hyster has taken a pay cut, he said.

The corporate sweep of the 64-year-old chairman's mind centres on a profitable company with a worldwide turnover of \$833m. It does not pass over local issues such as social responsibility in industrially-blighted south west Scotland. To him the Japanese are a greater force than a protesting Scottish public or a grumbling worker.

Automatic

Pay cuts, factory closures and trimmed capacity are all part of Kilkenny's fitness regime in response to worldwide overcapacity for forklifts which is estimated to be about 35 per cent. The company has also tried to create one source for each range of forklifts in Europe. Its modern works in Northern Ireland will concentrate on the small machines which are the strong point of the Japanese. Large vehicles will be made in the Netherlands; Hyster's plant at Nijmegen will lose most of its medium range production to Irvine which will concentrate on medium to large machines.

Meanwhile Hyster is cultivating an automatic materials handling equipment plant in the Republic of Ireland, its only more towards a sort of diversification. Kilkenny sees automated material handling as a logical extension of the forklift truck.

Mark Meredith

To create a really top business class we started at the bottom.



Announcing the arrival of Thai's new Royal Executive Class.

Designed to improve Business Class, we started out where a passenger spends most of his journey.

On his seat. The result, on our 747 Jumbos, is a First Class seat in every sense of the word. Bigger. Wider. More comfortable.

Not surprisingly, we needed more room to put them. So we created two spacious areas. One located upstairs where the First Class lounge used to be. The other downstairs with only twenty four seats instead of thirty five.

This means the aisle is not only wider, but there's considerably more space between your seat and the one in front.

Catching forty winks is also

easier because the new seat reclines a full twenty inches.

Enough on seating. On to eating. Part of any great service is serving great food.

In Royal Executive Class we go one better and give you a choice of menus.

So now, you can choose between the Chicken Legs and the Beef Stroganoff. Served on elegant china with fine cutlery and table linen.

Other niceties in the air include a selection of excellent wines and liqueurs, cheeseboards and baskets of tropical fruit, electronic headsets for your ears and comfort socks for your feet.

On the ground we offer speedy check-in at special Royal Executive

Class counters plus lounge facilities at most airports.

What's more, all this can be enjoyed for just the full economy fare, or a little more on certain intercontinental routes.

Royal Executive Class is also available on our DC10 flights to the Middle East and our A300 routes throughout the Orient.

So even if you change planes, you start and finish your journey in style.

For the ultimate in Business Class, fly Thai's Royal Executive Class.

We think you'll appreciate it from top to bottom.



The Formula for becoming Number 1.

KEKE ROSBERG

The International Finn. Formula 1 Driver, born 1948

First caught the motor racing bug at his father's motor club.

Began with go-karts and Formula K, and took the Finnish Championship at the age of only 18.

Switched to Formula Vee in 1972, and inside a year had made himself European Champion, picking up the Finnish and Scandinavian Championships along the way.

Keke signed a professional contract in 1974, and moved into the Super Vee class. The result was seven straight wins, and second and third place in two other races.

Made the jump in 1978 to the really big league, to Formula 1, and finished tenth in the 1980 Drivers' championship.

Keke won his first Grand Prix in 1982, at Dijon, was runner-up at Long Beach, Zolder, and Österreich, and took third places at Zandvoort, Diepholz and Hockenheim. With these placings Keke became the 1982 Formula 1 World Champion. Number 1 in Formula 1, 1982.



NESTE OY

The Finnish International Oil Company, born 1948.

Was established to secure Finland's supply of oil products. First Neste refinery on stream in 1957.

On completion of second refinery in 1966 rapid growth to become largest oil refiner in Nordic Countries.

Next step was to expand in the direction of petrochemicals, using refinery products as feed-stock.

But today Neste is much more than just an oil and petrochemicals company. For several years now the company has handled the import and distribution of natural gas in Finland. The Neste fleet is as much at home with shipments of gas and chemicals as with crude oil or oil products. Neste has a fully-fledged battery manufacturing industry, with plants in several countries. All sectors of company operations are backed up by experts from the engineering and R & D fields.

Today's Neste has grown into the giant of Finnish industry, the largest industrial enterprise in the country.

Number 1 in Finnish industry.

NESTE
Energy & Chemicals & Shipping

Handwritten text in Arabic script: "بسم الله الرحمن الرحيم"

THE WEEK IN THE COURTS

The statutory duty imposed on an occupier of land

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50¢ Plat. 20c	580	6 1/2	\$075c	2.1	7.8
50¢ Plat. 12 1/2c	320	11 1/2	\$031c	1.9	5.7
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